(No Model.)

G. P. KING.

CAR WHEEL.

No. 311,434. Patented Jan. 27, 1885.

Fig. 1.

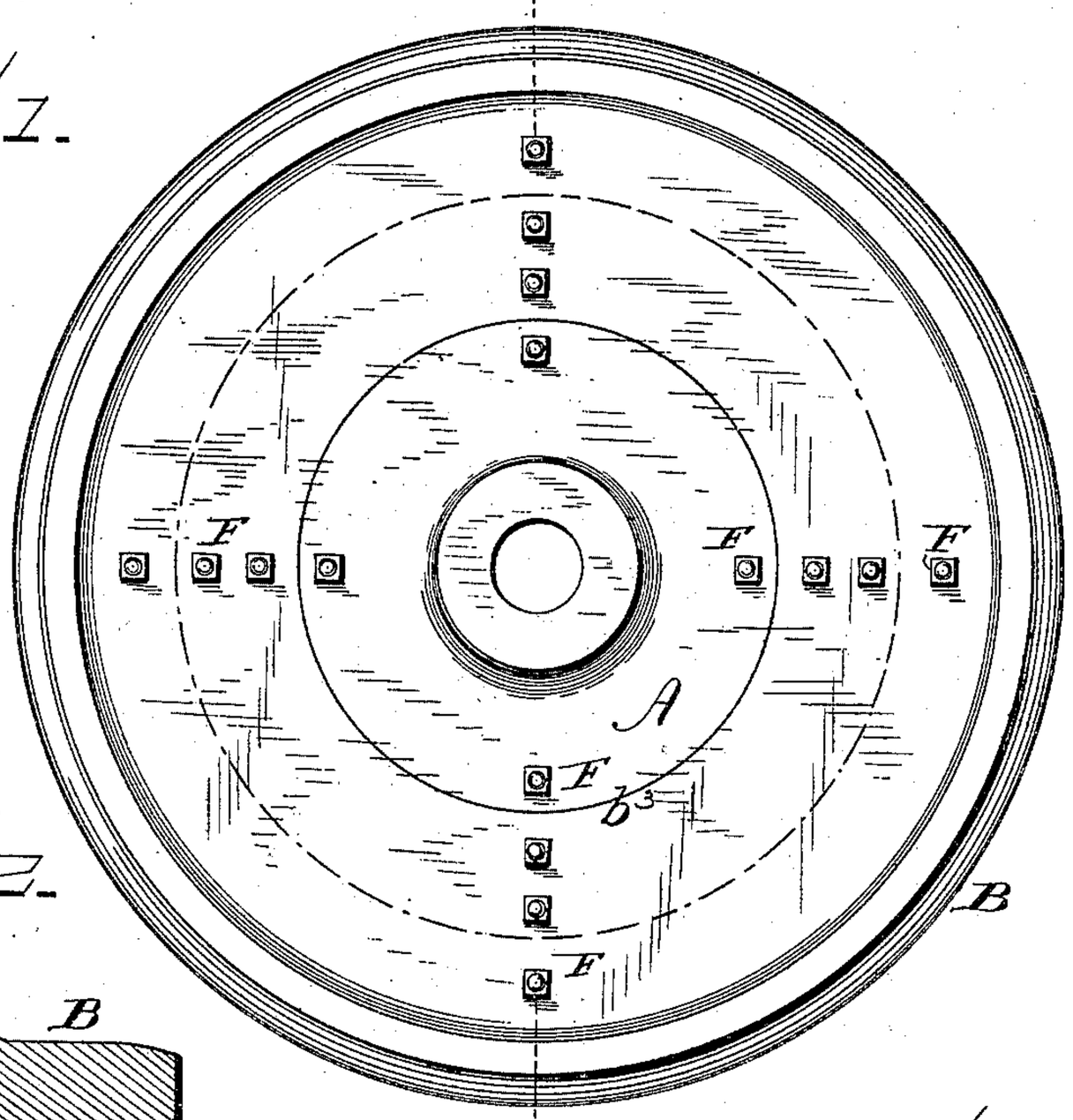


Fig. 2.

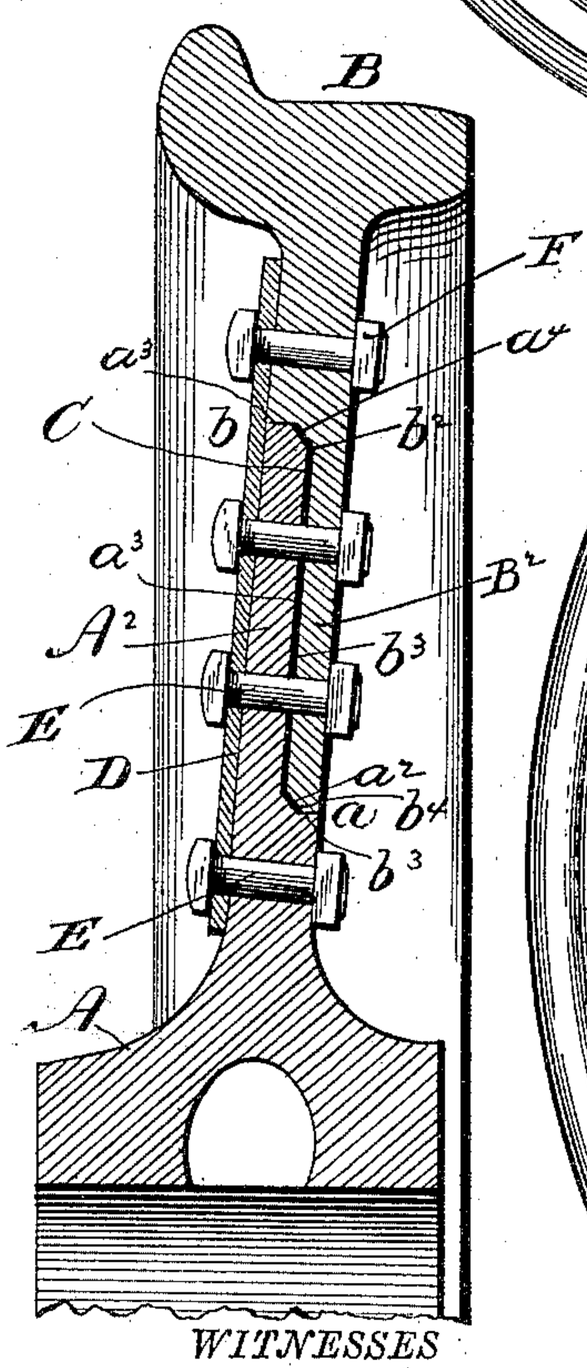
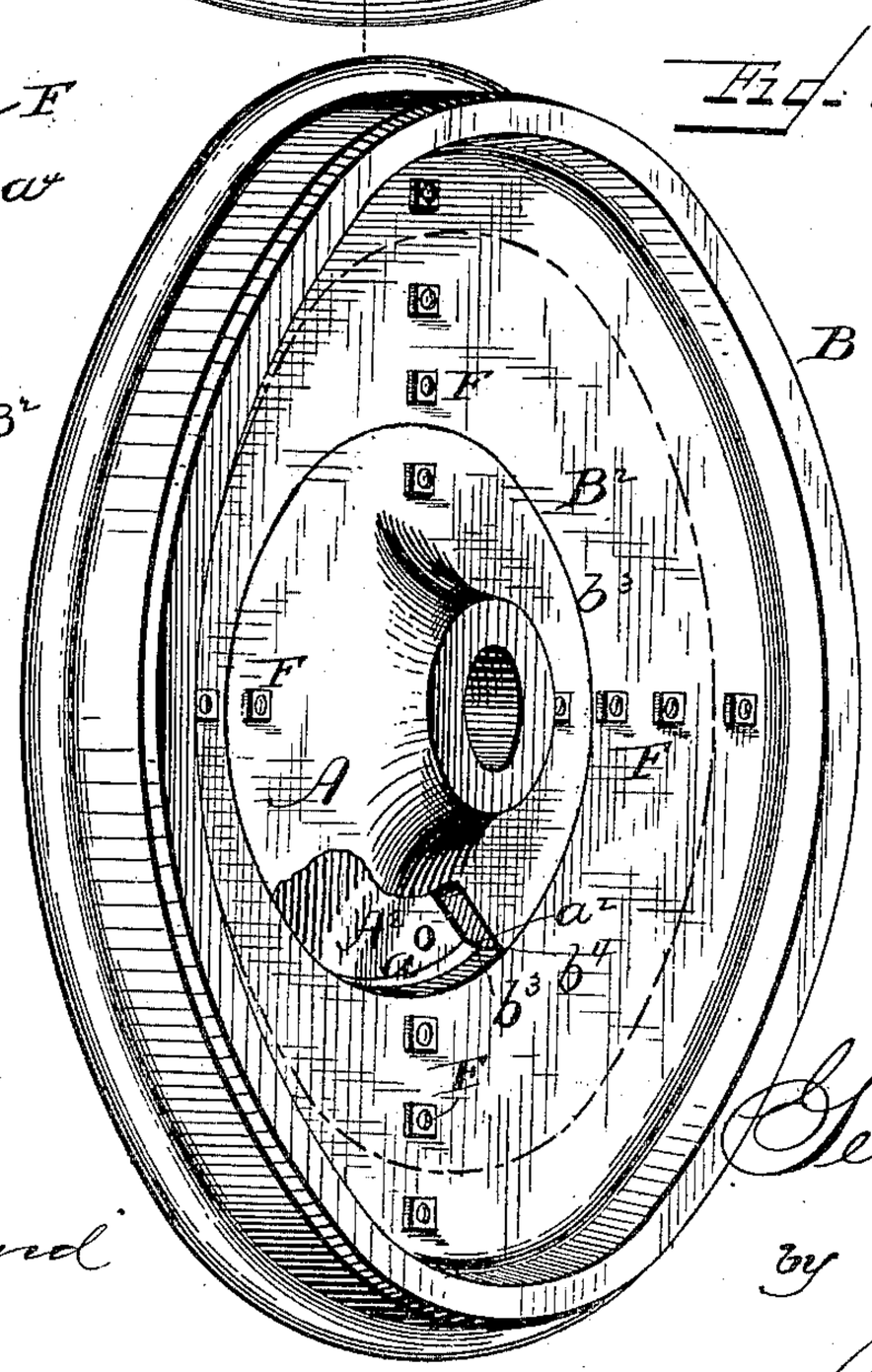


Fig. 3.



WITNESSES

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GEORGE PARKER KING, OF ST. THOMAS, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF TO GEORGE E. KING, OF DETROIT, MICHIGAN.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 311,434, dated January 27, 1885.

Application filed October 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. KING, a subject of the Queen of Great Britain, residing at St. Thomas, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Car-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to car-wheels; and its object is to provide a simple and improved wheel which will possess advantages in point of inexpensiveness, durability, and general efficiency, and in which the rim or tread portion can be readily and conveniently removed without removing the center or hub portion of the wheel from the axle, for purpose of substitution or repair.

In the drawings, Figure 1 is an elevation of a car-wheel embodying my improvements. Fig. 2 is a detail sectional view of the same. Fig. 3 is a detail perspective view, partly in section.

Corresponding parts in the figures are denoted by the same letters of reference.

Referring to the drawings, A and B designate, respectively, the hub and rim portions of my improved car-wheel, these parts being fitted and bolted together in the manner hereinafter described to form the complete wheel. The center or hub portion is formed with the usual bearing, and the rim is provided with the flange and tread, as shown, thus forming a chilled car-wheel cast in two parts. The parts A and B are provided on relatively-opposite sides with annular shoulders *a* and *b*, respectively, beveled or inclined at their inner portions, as shown at a^2 and b^2. From these shoulders extends a disk or flange, A^2 and B^2, having a corresponding straight annular edge, a^3 b^3, adapted to neatly fit the shoulder of the opposite section when the two sections or parts are lapped and secured in position. The edge of said flanges is beveled at its inner side, as shown at a^4 b^4, to correspond to the bevels a^2 and b^2.

When the parts are fitted together, as illustrated in Fig. 2, a packing, C, is interposed between the adjoining faces of the flanges A^2 and B^2, and at the beveled edges. This packing may be formed of paper, rubber, leather, or other suitable material, and its office is to overcome the tendency of the securing-bolts to lengthen when holding the rigid parts together and subject to vibratory motion. This packing also serves to relieve the strain on the securing-plate, hereinafter specified.

D designates an annular retaining or safety plate, which is preferably formed of wrought-iron and disposed at the inner face of the wheel, its office being to effect more secure fastening of the two parts A and B together and make a secure and solid joint. It is manifest that a corresponding plate may be provided upon the other face of the wheel, if desired.

The parts are secured together by means of a series of transverse bolts, E, extending through the flanges A^2 and B^2 and through the plate D, and secured by nuts F in any suitable manner. These securing-bolts are also provided to extend through the main portions A and B and through the plate D, for purpose of greater strength and security.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. By this improved construction of wheel the rim portion can be readily detached from the center or hub without removing the latter from the axle, thus enabling convenient substitution of a new rim portion at a comparatively small cost, and also saving expense of fitting a new wheel to the axle. By thus casting the wheel in the two parts specified the strain consequent upon casting the wheels solid or integral is relieved, thus enabling the use of a cast-iron wheel of larger dimension than is safe in the case of such wheels as are cast with all their parts integral.

I claim as my invention and desire to secure by Letters Patent—

1. In an improved two-part car-wheel, the combination of the hub portion provided with an annular shoulder, *a*, and with the flange A^2 extending therefrom, the rim portion provided with a corresponding shoulder, *b*, and corresponding flange, B^2, the packing interposed between the adjoining faces of the said flanges, and the annular retaining-plate disposed against the face of the wheel, substantially as and for the purpose set forth.

2. The combination, in an improved two-part car-wheel, of the separate hub and rim portions provided with the annular shoulders beveled at their inner ends, and with the disk or flanges provided with a straight annular edge, forming the joint, and with the corresponding bevel, the packing interposed between the adjoining faces of these lapped flanges, the retaining-plate secured against the face of the wheel, and the transverse bolt, substantially as and for the purpose set forth.

3. As an improvement in two-part car-wheels, the combination of the hub-section consisting of the bearing portion, the annular shoulder a, beveled at its inner portion, a^2, and the disk or flange projecting from this shoulder and formed with the straight annular edge a^3, beveled at its inner side, a^4, the rim portion consisting of the tread, a corresponding beveled shoulder, and disk or flange projecting therefrom and provided with the corresponding annular beveled edge, the packing interposed between the adjoining faces of the flanges and between the beveled inner portions of the shoulders, the annular retaining-plate disposed against the face of the wheel and over the joint of the flanges, and the transverse bolts, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE PARKER KING.

Witnesses:
JNO. MCLEAN,
ROBERT J. MILLER.